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trouve entre autres une répétition complète, après un intervalle d'environ 40 ans, des mesures de toutes les étoiles doubles formant l'objet principal de l'ouvrage de feu mon père, connu sous le nom des *Mensuræ micrometricæ.*" Struve speaks of Dembowski's observations as being about 20,000 in number, and says that eight years ago he had the pleasure of seeing his manuscript journals, and admiring their order and excellent state.

With regard to the accuracy of Dembowski's work, Mr. Burnham, who, in his letter, offers to prepare the manuscript for the press, writes:—"That he was the best observer who ever lived, in his special department, and in micrometer work generally, will not be questioned by any astronomer who has had occasion to investigate this field." Struve's words are: "S'étant procuré, de ses propres économies restreintes, des instruments de force très modique, il a, en simple particulier, labouré sans relache le même champ de travail pendant 30 ans, en s'appliquant continuellement à porter ses mesures au plus haut degré de perfection;" and in his presidential address, Dr. Huggins laid great stress on "the earnestness with which he sought to attain the greatest precision possible to him."

He was elected an Associate of the Society on November 8, 1878.

JEAN ALFRED GAUTIER was descended from one of the old families of Geneva. One of his ancestors, Jean Antoine Gautier, had occupied himself with astronomy, and on the occasion of the total eclipse of the Sun on May 12, 1706, made the first observations from which the longitude of Geneva could be deduced.

Alfred Gautier was born on July 19, 1793, and was educated at the College and Academy of Geneva, among his professors being M. A. Pictet, Lhuillier, and Deluc. He applied himself especially to mathematics, and, while still quite young, went to Paris, attracted by the reputation of Laplace, Lagrange, Legendre, &c. He profited greatly by the lectures he attended there; but, although he applied himself chiefly to the exact sciences, he did not neglect literary studies. In 1812, at the age of 19, he took the degree of Licentiate in Science at the University of Paris, and in 1813 that of Licentiate in Letters. He devoted the next few years to the production of a work entitled *Essai Historique sur le Problème des Trois Corps*, which obtained for him the title of Doctor, and attracted some notice at the time. In this volume of nearly 300 quarto pages the author gives, in a critical form, the complete history of all that had been written on the reciprocal action of bodies in space, adding original investigations of his own.

After completing his studies at Paris, he visited England, where his reputation had preceded him. He formed numerous friendships, and became especially intimate with John Herschel, who was to become famous like his father. The year that Gautier passed in England exercised a marked influence on all

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his life, by the correspondence which he always kept up with the men of science whom he then met.

On his return to Geneva, in 1819, he was appointed honorary professor at the Academy, and charged with a course of lectures on astronomy, to which he added, from 1821, a course on higher mathematics. In the seventeen years during which he held the position of professor he contributed greatly to develop a taste for science among his auditors, and four of the present professors in the Academy were pupils of his. As Professor of Astronomy Gautier had under his direction the little Observatory which was founded in 1773, and which occupied a site not far from where the present Observatory stands. But this establishment was almost useless, and Gautier could not begin observations there until 1824, when it had been put in repair and equipped with a Repeating Circle of 20 inches diameter by Gambey.

In this rudimentary observatory he performed several pieces of work, the most important being the determination of the longitude and especially the latitude of Geneva, which previously was not known to within four seconds. The latitude had been determined by Mallet and Pictet to be 46° 12′ and 46° 11′ 32″; and Gautier, as the result of a long series of observations, made in the years 1825–28, found it to be 46° 11′ 59″·4.

Gautier was the chief mover in the foundation of the new Observatory. In 1829 he set to work to obtain a new establishment, and supported his application in various ways, especially by a petition from the watchmakers, who were naturally interested in having at Geneva the means of obtaining the exact time. The petition was signed by sixty firms.

Gautier was then a member of the Representative Council, and on June 24, 1829, the sum of 30,000 francs was voted for the erection of a new building, and a further sum of 25,000 francs for the purchase of a Transit instrument and Equatoreal. Gautier himself drew the plans of the observatory, and he had the satisfaction of seeing it completed in 1830. A description of it, by him, appeared in the seventh volume of Quetelet's *Correspondance Mathématique et Physique.*

Just at this moment, when the activity of Gautier seemed at length to have obtained free scope, a sad infirmity suddenly checked his career. He was attacked by an affection in his sight, which rendered direct observation impossible. He then accepted the help of an assistant, L. F. Wartmann, towards whom he always retained a sincere attachment, and who had already afforded most valuable assistance to him in the construction of the Observatory

Notwithstanding this assistance, Gautier resolved to yield to circumstances, and, with a conscientious modesty which was characteristic of him, decided to retire from an office which he could no longer fill to the best advantage. He waited, therefore, with impatience the return of his pupil, M. E. Plantamour, from Germany in 1837 in order to give up to him the direction of the new Observatory, as well as his Chair of Astronomy.

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The infirmity which led to Gautier's resignation did not, however, check his scientific activity, and he occupied himself with investigations connected with physical astronomy and meteorology. He followed with admiration the great works inaugurated by Humboldt and Gauss for determining the laws of terrestrial magnetism.

He always kept himself well informed with respect to the advance of science, on which he regularly wrote *comptes rendus*; and for half a century he was one of the most zealous *collaborateurs* of the *Bibliothèque Universelle de Genève.*

This activity never ceased, and during 1880 several articles were published that were signed by him. He was elected a member of the *Société de Physique et d'Histoire Naturelle* of Geneva in 1818, and regularly attended its meetings, making frequent communications to it. In the year of his death, at the age of eighty-eight years, he gave an account to the Society on June 9 of the contents of the Annual Report of the Greenwich Observatory.

He retained all his faculties to the last, and his memory was quite unimpaired. He was closely connected with other Geneva Societies besides the *Société de Physique*, and was greatly interested in the trade and industries of the town.

Gautier was married twice, but had no children. He lived in retirement in the country at Chougny, and devoted much of his time to good works. He was remarkable for his extreme modesty, which led him to keep himself in the background on all occasions, and for the amiability of his character. He died, after a short illness, on November 30, 1881. His two nephews, Emile and Raoul Gautier, have inherited from him his scientific tastes, and their pursuits are the same as those of their uncle.

In the *Bibliothèque Universelle de Genève* for 1824 and 1825 he published, under the title *Coup d'œil sur l'état actuel de l'Astronomie pratique en France et en Angleterre*, several articles relating to English astronomy. The subject of the first is the Greenwich Observatory; the second relates to the Dublin Observatory and to the most recent researches upon the annual parallax of stars; the third contains a description of the Observatories of Oxford and Cambridge, and also an account of the mathematical teaching at Cambridge. The latter possesses now a good deal of interest, as Gautier visited Cambridge at the time when the mathematical reforms, which have had so great an effect on the studies of the University, were being inaugurated; and he was brought into close contact with Whewell, Peacock, &c. The last article relates to the Observatories and Institutions of Scotland. These articles with others were published as a separate volume in 1825.

Gautier was elected an Associate of this Society on January 11, 1822, within two years of its foundation, and was the oldest Associate. He was also the oldest foreign member of the Cambridge Philosophical Society, having been elected soon after its foundation.